

### 3.4.4 IMPLEMENTATION OF MITIGATION MEASURES

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As mentioned, Project Staff setup a tier of meetings and coordination to develop a holistic and comprehensive Mitigation Strategy and Action Plan given Louisville's hazards, vulnerabilities, and resources. The Planning Team and Advisory Committee met in subcommittees twice to review the draft Action Plan and cost/benefit and then in full committee to prioritize projects, and set an implementation timeline and standard.

#### Prioritization

Mitigation action prioritization emphasizes the extent to which benefits are maximized, according to a cost benefit review of the proposed projects and their associated costs.

The Action Plan recommends mitigation projects that can be implemented through existing programs and integrated into job descriptions, comprehensive plans, capital improvement plans, zoning and building codes, permitting, and other planning tools, where appropriate. Fortunately, many of the agencies who are implementing the Action Plan are members of the Advisory Committee or the Planning Team.

The hazard mitigation actions listed in the Mitigation Action Table were developed during the process, indicated above, and prioritized by the Planning Team and Advisory Committee by the following method.

#### Mitigation Prioritization

Priority	Description
<b>A</b>  Very High	<b>Priority A</b> projects <b>permanently eliminate</b> damages or significantly reduce the probability of deaths and injuries in a specified area.  Priority A projects mitigate Louisville Metro's most significant hazards.  Priority A is also given to other activities that have a <b>high probability of systematically</b> reducing damages or deaths and injuries across a wide area from one or more of Louisville Metro's most significant hazards.
<b>B</b>  High	<b>Priority B</b> projects <b>permanently reduce</b> damages in a specified area from one of Louisville Metro's most significant hazards.  Priority B is also given to other activities with the <b>potential for reducing</b> damages, deaths and injuries across a wide area from one or more of Louisville Metro's most significant hazards
<b>C</b>  Medium	<b>Priority C</b> projects, or activities, help <b>alert the public to the approach of a threat</b> from any of Louisville Metro's hazards, or <b>educate the public</b> about the need for disaster preparedness and mitigation.
<b>D</b>  Low	<b>Priority D</b> projects, or activities, permanently reduce damages or significantly reduce the probability of deaths and injuries in a specified area from one of Louisville Metro's <b>less significant hazards</b> .

### **Cost-Benefit Review**

Through the Committees prioritization table, a cost-benefit analysis was completed whereby, the higher the action's priority, the more cost beneficial the action was determined to be for the community.

The Committees used a scoring system of: Very High, High, Medium, and Low. The cost-benefit criteria used to prioritize each action was:

- a. Permanently eliminates damages
- b. Permanently reduces damages
- c. Alerts the public to the approach of a threat
- d. Permanently reduces damages from less significant hazards.

**Program Funding:** For program funding, the mitigation measures in the Action Plan are cost effective, environmentally sound, and technically feasible and the Action Plan prioritizes the measures based on these criteria.

See the table at this end of this section titled, "Emergency Management and Hazard Mitigation Potential Funding Sources Federal Funding and Technical Assistance". See Appendix 18 for the All Hazards Mitigation Action Plan. In Appendix 15, State Hazard Mitigation Capability Matrix, potential federal, state, and local funding sources are listed.

**Implementation:** Every project or activity in the Action Plan lists a lead agency or personnel responsible for carrying out the actions, as well as partners. The Lead Implementer column lists a name of the contact person who will be able to report to the committees during the annual update and will be responsible for overseeing the project or activity. In the column for Goals 1 - 7, each goal fulfilled by the action is listed.

A first goal of the Plan Development Team is to update this Plan by capturing new data, especially in the area of GIS information. In general, the Committees anticipate the need to collect additional data on repetitive loss structures; details of future flood events including location and extent, and track the frequency of future events. Creating GIS information from the data collected will be an invaluable resource and may be expensive. As funding becomes available in the future, new data may be processed to enhance updates of this Plan. Finally, as new data becomes available from outside resources, future updates of the Plan will include this information where applicable and affordable.

**Hazard Mitigation Action Plan:** Following is the final Hazard Mitigation Action Plan. Please note: The Louisville Metro Mitigation Action Plan is also being kept in Appendix 18 so that updating the actions will be easier and more efficient during the annual and five-year Plan Maintenance Procedures. The Actions will be reviewed and updated annually during the committee review process.

# Louisville Metro Hazard Mitigation Action Plan

## May 2005

### Louisville Metro Hazard Mitigation Goals

Goal 1—Minimize the loss of life and injuries that could be caused by natural hazards.

Goal 2—Facilitate a sustainable economy by protecting agriculture, business, and other economic activities from natural hazards.

Goal 3—Facilitate the strengthening of public emergency services, its infrastructure, facilities, equipment, and personnel to natural hazards.

Goal 4—Develop a community-wide mitigation effort by building stronger partnerships between government, businesses, and the general public.

Goal 5—Increase public and private understanding of natural hazard mitigation through the promotion of mitigation education and awareness of natural hazards.

Goal 6—Enhance existing or design new policies and technical capabilities that will reduce the effects of natural hazards.

Goal 7—Enhance existing technical and GIS data and capabilities that will reduce the effects of natural hazards.

Note: "NOB" indicates an internal agency effort via Normal Operating Budget resources

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
All Hazards	<b>Develop Cellular phone service emergency warnings</b> - Send out mass text messages for emergency warnings -- Inform people about the availability of this service by their provider - Research other communities who have already implemented	EMA (Jim McKinney)	Cell Companies LEPC MetroSafe	2005 to research  2007 to implement	TBD	Percentage of cell coverage	C	1
All Hazards	<b>Collect and Assemble building values</b> Data to reside in LOJIC system for: <input type="checkbox"/> Public facilities <input type="checkbox"/> Hospitals <input type="checkbox"/> Parochial and private schools <input type="checkbox"/> Non-profits <input type="checkbox"/> Local, state, and federal	PVA	Metro Facilities KY Educ. Dept. KY Div. Health Care U.S. agencies LOJIC	2006	Resources needed	Collected data	A	7
All Hazards	<b>Collect Additional Enhanced Data for Publicly owned buildings and facilities</b> Develop a central spatial database of all publicly owned buildings and facilities. Data to reside in LOJIC system	Metro Facilities	LOJIC PVA	2005	NOB	Spatial database	A	7

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
All Hazards	<b>All Hazards Information Portal</b> Add Standardized Seasonal "Fact Sheets" <ul style="list-style-type: none"> <li>• Message to be consistent for ARC, Health Dept., EMA, LGE, Dept. of Educ, etc...</li> <li>• Develop a seasonal section for teachers and citizens</li> <li>• Metro Call could help drive data collection and promote information</li> </ul>	MSD (Randy Stambaugh) EMA (Jim McKinney)	All agencies ARC Health Dept. EMA LGE JCPS Metro Call LOJIC	2006 - 2007	Grant in place	Operating portal	C	
All Hazards	<b>All Hazards Information Portal</b> - Track and share data on hazard occurrences and damage costs -- Database and upload function for agency use from All Hazard portal	MSD (Randy Stambaugh) EMA (Jim McKinney)	All agencies	2006	Grant in place	Operating portal	B	3, 4, 6 & 7
All Hazards	<b>Public education &amp; standard public statements for All Hazards</b> <ul style="list-style-type: none"> <li>• Develop a standard message and education strategy for pre and post-disaster messages. E.g.</li> <li>• Boil water advisories</li> <li>• Where shelters are located</li> <li>• When streets will be cleared</li> <li>• When electricity will be back on</li> <li>• Promote:</li> <li>• Availability of hazard insurance, e.g., flood, earthquake, etc</li> <li>• Severe storm month</li> <li>• Utilize recording by MetroCall to disseminate brief information on hazards</li> </ul>	Public Information and Outreach Committee	ARC JCPS NWS EMA MetroCall Metro/Suburban Fire KYEM Area 6 Health Dept MSD USGS Metro Police Corps of Engineers	2006	NOB	Standard Message	C	4, 5
Dam & Levee Failure	Verify GIS locations for existing state dams	LOJIC (Curt Bynum)	KY DOW MSD NRCS Metro/Suburban Fire Districts Metro Parks	2005	NOB	GIS locations	A	7

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Dam & Levee Failure	<b>Class C, High-Hazard Dams</b> <ul style="list-style-type: none"> <li>Ensure all Class C dams have and maintain an Emergency Operations Plan (EOP)</li> <li>Verify downstream warning system, public notice, etc. are included in EOP.</li> </ul>	MSD (Vince Bowlin)	KY DOW Metro Parks Dam owner	2005	NOB	If not at state – do locally	A	1, 2
Dam & Levee Failure	<b>Develop a local inventory of all dams</b>	MSD (Vince Bowlin)	Metro PW LOJIC	2006	NOB	Inventory	B	1, 2, 7
Dam & Levee Failure	<b>Inventory of dams in local Metro parks</b>	Metro Parks (Bill Herron)	MSD LOJIC	2005	NOB	Inventory	B	1, 2, 7
Dam & Levee Failure	<b>Develop Dam inundation models</b>	MSD (Vince Bowlin)  LOJIC (Curt Bynum)	Corp of Engineers KY DOW LOJIC	2008	TBD	Modeling	A	1, 2, 7
Dam & Levee Failure	<b>Collect types of dam materials</b>	MSD (Vince Bowlin)	Corp of Engineers Metro Parks KY DOW LOJIC	2006	NOB	Catalogue materials	A	7
Dam & Levee Failure	<b>Develop better local dam construction and inspections criteria</b> In order of the following: <ol style="list-style-type: none"> <li>Develop inspection and construction criteria to review existing dams – adopt in Land Development Code</li> <li>Inspect dams to develop a report</li> <li>Determine if dam classifications are out-of-date</li> <li>Require dam owner to maintain EOP and annual drills</li> </ol>	Metro Parks (Bill Herron)  MSD (Vince Bowlin)	KYDOW Dam owner EMA Corp of Engineers PDS	2005- 2007	NOB	- Inspection criteria and updated classifications - Adopted in Land Development Code	A	2, 3, 4, 7
Dam & Levee Failure	<b>Consider requiring EOP for Class B dams</b>	KY DOW Dam Safety Program	MSD Metro Parks Dam owner LOJIC	2006	NOB	EOPs	B	1

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Dam & Levee Failure	<b>Removal and replace unsafe dams</b>  Once inspections are complete, the list of unsafe dams will determine next steps for repair and/or remove dams	Metro Parks (Bill Herron)  MSD (Vince Bowlin)	KYDOW NRCS Dam owner LOJIC	2005/06	Metro Parks MSD Capital Projects NRCS	# of dams removed or repaired	A	1, 2, 3,
Dam & Levee Failure	<b>Develop a local dam permitting process</b>  For dams that do not fit the state's definition of a dam. Adopt process in codes.	Metro Parks (Bill Herron)  MSD (Vince Bowlin)	KYDOW EMA PDS IPL	2005	NOB	Permit process	A	1, 2, 3, 4, 7
Dam & Levee Failure	<b>Place a benchmark or similar point on dams to determine if movement is occurring</b>  Benchmark placement should coincide with inspection and data development	Metro Parks (Bill Herron)  MSD (Vince Bowlin)	KYDOW Dam owner EMA Corp of Engineers PDS LOJIC	2006	Approx. \$1500 per dam	# of dams with benchmarks and signs installed	B	2, 3
Dam & Levee Failure	<b>Post a sign/landmark on dams with classification type (A, B, or C).</b> Signs to include: <ul style="list-style-type: none"> <li>• A description of materials</li> <li>• Potential for movement</li> <li>• Contact numbers</li> <li>• Description of different types of things to look for when a dam fails</li> </ul>	Metro Parks (Bill Herron)  MSD (Vince Bowlin)	KYDOW Dam owner EMA Corp of Engineers LOJIC	Strategy in 2005	TBD	# of dams with signs /landmarks installed	C	2. 3. 5
Dam & Levee Failure	<b>Evaluate damage to levee and flood protection system</b> Primarily Ohio River Flood Protection System and large pump stations (i.e. Beargrass Creek)	MSD (Vince Bowlin)	Corps of Engineers LG&E	Ongoing with no end date	MSD funded; estimated at \$2.2 million/yr. (\$38 million Total Est. Cost)	# of facilities evaluated and rehabilitated	A	1
Drought	<b>Need a central local agency or avenue to report and receive info</b> <ul style="list-style-type: none"> <li>• Link to All Hazards Portal</li> <li>• Need to collect loss of Agricultural, economic #s, water supply</li> </ul>	EMA & MSD (All Hazards Portal)	All Agencies LEPC	2006	TBD	Information gathered & Information Disseminated	B	2, 4, 6

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Drought	<b>Drought damage and education –</b> Outreach and education should include <ul style="list-style-type: none"> <li>• WHEN Drought occurs</li> <li>• How do we keep the public informed</li> <li>• Agricultural extension could help keep track of this information</li> </ul>	EMA (Jim McKinney)  Public Health (Bill Wetter)	NRCS Metro Call LWC All Hazard Portal	2006	TBD	Information gathered & Information Disseminated	C	4, 7
Drought	<b>Partner with State's Drought task force (Water Availability Advisory Committee) to</b> <ul style="list-style-type: none"> <li>• Track and deal with issues</li> <li>• Assess statewide and local impacts</li> <li>• Contact Tom Priddy, U of K, who does Drought research</li> </ul>	NWS-- Mike Callahan	NWS KGS Corp of Eng State Climatologists NRCS	2005	NOB	Information gathered & Information Disseminated	C	4, 5
Drought	<b>Public education: Foundations cracking in extreme drought</b> Promote public awareness, soil shrinkage can lead to cracking in foundations – solutions are to water the lawn and the foundation	EMA (Jim McKinney)	NRCS All Hazards Portal MetroCall	2005	NOB	Information gathered & Information Disseminated	C	5
Earthquake	<b>Develop Enhanced soils data to determine liquefaction</b> Need better soils data, esp. for downtown/urban area	NRCS (Kurt Mason)	USGS KGS LOJIC Corp of Engineers Local geotechnical, architectural & building firms	2008	Resources needed	Collected soils data	B	7
Earthquake	<b>Collect Additional Enhanced Building Data</b> <ul style="list-style-type: none"> <li>▪ Need year built, especially structures older than 1980</li> <li>▪ Need type of foundation and building construction type</li> </ul>	PVA	LOJIC Fire Inspections Police Metro Facilities Health Dept. Local Hospitals	2007 - 2008	Resources needed	Collected data	A	7

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Earthquake	<b>Earthquake preparedness &amp; Public Outreach</b> <ul style="list-style-type: none"> <li>Consider a Public Information Officer for all hazard committee</li> <li>Develop standard message for Media</li> <li>Research and distribute new KY EM Guide produced by the state</li> </ul>	EMA (Jim McKinney)  KY EM (Steve Ogelsby, EQ director)	EMA ARC JCPS Media All Hazards Portal MetroCall	2006	TBD	Information gathered & Information Disseminated	C	5, 6
Earthquake	<b>Location of existing fault lines</b>	KGS	LOJIC	2005	NOB	Locations	B	1, 7
Earthquake	<b>Inventory Hospital underground wells</b> Data is with Metro Public Health	Public Health (Bill Wetter)	Metro Public Health Local Hospitals LOJIC	2005	NOB	Locations	B	1, 7
Earthquake	<b>Target Public buildings for retrofit</b> <ul style="list-style-type: none"> <li>Once inventory of public building is completed (LOJIC), target earthquake-prone structures</li> <li>Develop standard for structural sound and asset tie-down (i.e. heavy bookcases, equipment)</li> <li>Promote purchase of earthquake insurance</li> </ul>	Metro Facilities Mgmt	Metro PW LOJIC JCPS Libraries Structural Committee	2008	TBD  Need grant funding	# of buildings retrofitted	A	1
Extreme Heat	<b>Need a central local agency or avenue to report and receive info for extreme heat</b> Link to All Hazards Portal	EMA & MSD (All Hazards Portal)	LEPC Police Fire NWS Health Department Metro Call	2006			B	2, 5, 7



Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Extreme Heat	<b>Collect standard damage reports</b> Reports come from NWS & Public Health	EMA (Jim McKinney)	NWS Public Health JCPS LEPC	2005	NOB	Report system in place	D	3, 7
Extreme Heat	<b>Partner with existing Extreme Weather Group</b> Group makes projections of how long the weather will continue and directs the opening of cooling centers.	NWS (Mike Callahan)	NWS	2005	NOB	Partnership	C	5
Flood	<b>Enforce Floodplain Ordinance Regulations</b> - Especially for repetitive loss	MSD (Randy Stambaugh)	EMA	2005	NOB	Reduce repetitive loss	A	2
Flood	<b>Map Repetitive Loss properties</b> <ul style="list-style-type: none"> <li>• Use NFIP insurance claims as basis</li> <li>• Expand repetitive loss sites to vulnerable "area"</li> </ul>	LOJIC (Curt Bynum)	MSD	2005	NOB	Map	A	2, 7

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Flood	<b>Woodland Manor Basin</b> Project involves the construction of a 38 acre-feet basin at the confluence of Fishpool Creek and Southern Ditch in the Pond Creek Watershed. This basin will benefit local roads and residential properties in the Woodland Manor neighborhood that are particularly susceptible to frequent flood damage.	MSD (Randy Stambaugh)		2006, if funded	PDM grant application is being reviewed by state, FEMA region, and National Review Committee	Basin	B	1
Flood	<b>Aganza Basin</b> Project involves the construction of an 860 acre-feet basin within the Pond Creek Watershed. This basin will benefit local roads, homes, and businesses that are particularly susceptible to heavy flood damage due to development within this former swampland.	MSD (Randy Stambaugh)		2006, if funded	PDM grant application is being reviewed by state, FEMA region, and National Review Committee	Basin	B	1
Flood	<b>Collect Building first floor elevations</b> <ul style="list-style-type: none"> <li>Use data to model at-risk structures</li> <li>Cost could be significant depending on the # of elevations</li> <li>Will require contractors</li> </ul>	MSD (Randy Stambaugh)	LOJIC	2007	TBD, possibly grants	Completed elevations	B	1, 7
Flood	<b>Map Modernization and D-FIRM (digital Flood Insurance Rate Map)</b> Information will provide better data for update to plan	MSD (Randy Stambaugh)	LOJIC	2006	Grant in place	Completed Map Mod	A	1
Flood	<b>Target public buildings damaged by flood for retrofit</b> <ol style="list-style-type: none"> <li>Inventory public buildings at risk from flood</li> <li>Develop strategy to ensure buildings are floodproofed/retrofitted</li> <li>Target flood-prone</li> </ol>	MSD (Randy Stambaugh)  LOJIC (Curt Bynum)	Metro PW Metro Facilities JCPS Libraries Metro Facilities Mgmt	2005	NOB for inventory and strategy Grants for retrofit	Inventory Strategy # of buildings protected	A	1

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Flood	Review and update High Water Emergency Plans	MSD (Vince Bowlin)	Corp of Engineers EMA Mayor's Office Metro PW	2006	NOB	Plans in place	A	1
Flood	<b>FWEEPS (Flood Warning and Emergency Evacuation Plans).</b> <ul style="list-style-type: none"> <li>Review locations and number of existing plans</li> <li>List all locations and plans and make available to public agencies</li> </ul>	Corp of Engineers (Richard Pruitt)	MSD EMA KYDOW Metro PW Metro Police Metro/Suburban Fire	2006	NOB	List of Emergency Response Actions and Post-Flood Recovery Plans	A	1
Flood	<b>Determine if additional FWEEPs are needed</b>  Develop FWEEPs for areas not included in the List of Emergency Response Actions and Post-Flood Recovery Plans	MSD	USACE	2007	Grants	New Emergency Response Actions and Post-Flood Recovery Plans Developed	A	1
Flood	<b>Review Flood Warning Gauges and effectiveness</b> USGS proposes a web-based project to feed early warning program. Project would include developing flood tracking charts/ flows interactive and use of flood inundation mapping. Gauges could be phased.	USGS (Mike Griffin)	EMA MSD NWS	Phased	Estimate \$200K to begin project  Need grant funding	# of gauges	B	1

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Flood	<b>Outreach Projects</b> <ul style="list-style-type: none"> <li>Partner with KY Weather Preparedness Committee (KWPC)</li> <li>Promote the existing national FLASH program</li> <li>Promote "Turn around and don't drown".</li> <li>Include message for No Dumping of Debris in ditches.</li> </ul>	NWS (Mike Callahan)  EMA (Jim McKinney)	All agencies All Hazards Portal KWPC	2006	TBD	Completed outreach & partnerships	C	1, 5
Flood	<b>Develop program for Non-profit retrofitting</b> Investigate non-profit/humanitarian home building entities for low-income floodproofing /retrofitting projects in a floodprone area.	All Hazard Committee	Corporate sponsors All agencies	2009	Dependent on donations or grant	# of building protected	B	5

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Flood	<b>Develop a plan to identify potential candidates for buyouts or assistance from disaster agencies.</b> Components may include: <ul style="list-style-type: none"> <li>Identify funding alternatives</li> <li>Coordination with disaster assistance agencies to ensure efficient use of funds</li> <li>Define/prioritize potential acquisitions</li> </ul>	MSD (Randy Stambaugh)	EMA KYEM	2006 for a plan	Acquisition may depend on Grants  Capital Improvements Budget	# of building protected	B	1
Flood	<b>Slope Stabilization</b> Erosion and Sediment Control	MSD	KYDOW	2005	MSD Capital Projects	Acreage of slopes stabilized	B	2
Flood	<b>Develop strategy and solutions for Individual Properties with Flooding Problems</b> <ol style="list-style-type: none"> <li>Develop strategy</li> <li>Target and evaluate properties that do not fit into traditional projects</li> <li>Develop potential solutions both on an individual and watershed level.</li> </ol>	MSD (Randy Stambaugh)	Louisville Metro EMA Corps of Engineers KYEM	2006 – 2007 for strategy	Acquisition depends on Grants	# of building protected	B	1, 2
Karst/Sinkholes	<b>Need a central local agency or avenue to report and receive info for karst/sinkhole</b> Recommend development of karst and landslide review component in a new "overlay district"	PDS)	PDS Planning Commission Metro PW	2006	NOB	Review agency in place	B	6
Karst/Sinkholes	<b>Define plan review overlay districts</b> <ul style="list-style-type: none"> <li>Base on census tracts at risk from karst</li> <li>Incorporate into MIDAS</li> </ul>	Metro Planning Design Services	Metro Parks Olmstead Conservancy MSD NRCS KGS LOJIC IPL	2005	NOB	Overlay Districts formed	A	5, 7

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Karst/Sinkholes	<b>Recommend local codes for karst regulations</b> <ul style="list-style-type: none"> <li>Research what has been looked at in the past</li> <li>New regulations to be addressed in Land Development Code</li> </ul>	Metro Planning Design Services	Metro Parks Olmstead Conservancy MSD NRCS KGS LOJIC IPL	Research in 2005  2006 passage	NOB	Adopted in Land Development Code	A	6
Karst/Sinkholes	<b>Dye-Tracing in sinkholes</b> Conduct dye-tracing to assess critical sinkholes and subsurface ground water impacts	Metro Planning MSD KGS	Metro Parks LOJIC	2007	Resources needed	Inventory	B	2, 6
Karst/Sinkholes	<b>Sinkhole inventory in Louisville Metro Parks</b>	Metro Parks (Bill Herron)	Olmstead Conservancy LOJIC	2006	NOB	Inventory	B	7
Karst/Sinkholes	<b>Collect better karst/sinkhole soils data</b> <ol style="list-style-type: none"> <li>Research/develop soils data in census tracts at risk from landslide</li> <li>Incorporate into MIDAS</li> </ol>	NRCS (Kurt Mason)	USGS KGS LOJIC Corp of Engineers IPL Local geotechnical, architectural & building firms	2007	Resources needed	Soils data Strategy for targeted areas	B	6, 7
Karst/Sinkholes	<b>Collect better building/facility data in karst census tracks</b> <ul style="list-style-type: none"> <li>Develop building data info</li> <li>Develop a strategy to target areas for outreach, regulations, retrofit, etc...</li> </ul>	Metro Facilities	PVA LOJIC IPL	2007	NOB	Data collected and strategy in place	A	5, 6,, 7
Karst/Sinkholes	<b>Research hazard disclosure laws</b>	Board of Realtors	All agencies	2007	NOB	Report on law	C	6

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Karst/Sinkholes	Repairs to public park lands and facilities Currently in place for Iroquois & Cherokee Parks	Metro Parks (Bill Herron)	MSD KYDOW Olmstead Conservancy LOJIC	2005 – 2006	Metro Parks funded – currently \$125K for Iroquois	Acreage of lands repaired	B	2
Landslide	Need a central local agency or avenue to report and receive info for landslide Recommend development of karst and landslide review component in a new "overlay district"	Metro PDS (Dennis Minks)	Metro PDS Planning Commission Metro PW	2006	NOB	Review agency in place	B	2, 6, 7
Landslide	<b>Enforce Binding Elements</b>  To limit clearing of vegetation on high-risk slopes	PDS	IPL	2005	NOB		B	
Landslide	<b>Define landslide plan review overlay districts</b> to limit development of high-risk slopes  Base on census tracts at risk from landslide	Metro Planning Design	Metro Parks Olmstead Conservancy MSD NRCS KGS LOJIC IPL	2005	NOB	Overlay Districts formed	A	4, 6
Landslide	<b>Develop soils data for landslide</b> 1. Research/develop soils data in census tracts at risk from landslide 2. Incorporate into MIDAS 3. Target areas	NRCS (Kurt Mason)	Metro PW Metro PDS Metro Parks LOJIC IPL KGS USGS	2006	Resources needed	Data collected and strategy in place	B	6
Landslide	<b>Collect better building/facility data in landslide census tracks</b> ▪ Develop building data info ▪ Develop a strategy to target areas for outreach, regulations, retrofit, etc...	Metro Facilities	PVA LOJIC IPL	2005	Resources needed	Data collected and strategy in place	A	2, 7

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Landslide	<b>Recommend local codes for landslide regulations</b> <ul style="list-style-type: none"> <li>Research what has been looked at in the past</li> <li>New regulations to be addressed in Land Development Code</li> </ul>	PDS	NRCS KGS LOJIC IPL Planning Commission	Research in 2005  2006 passage	NOB	Adopted in Land Development Code	A	2, 3, 7
Landslide	<b>Consider hazard disclosure laws</b>	Board of Realtors	All agencies	2007	NOB	Report on law	C	6
Landslide	<b>Repairs and reforestation to public lands and facilities</b>  Currently in place for Iroquois & Cherokee Parks	Metro Parks (Bill Herron)	MSD KYDOW Olmstead Conservancy LOJIC	3 <sup>rd</sup> Qtr 2005 –2006	Metro Parks funded – currently \$125K for Iroquois	Acreage of lands repaired	B	2, 4, 5
Wind/Storm Driven Hazards: Tornadoes, Winter Storms, Thunderstorms, Hailstorms, and Lightning	<b>Re-evaluate Outdoor Warning Sirens</b>  Review number, locations, and capabilities of warning sirens to ensure adequate coverage.	EMA (Jim McKinney)	LEPC	2005	EMA Capital Budget \$145K	Report and Percentage of coverage	C	1, 3, 5
Wind/Storm Driven Hazards	<b>Outdoor Warning Sirens --- a requirement for new subdivisions</b> EMA is currently working with the development group to make Sirens a requirement for all new subdivisions.	EMA (Jim McKinney)	PDS HBAL Developers LOJIC MSD	2005	NOB	Adopt in Land Development Code	C	1, 3, 5, 6
Wind/Storm Driven Hazards	<b>Promote &amp; Distribute Weather Radios</b> ARC work a grant w/ packet to the radio/corporate sponsor	ARC (George Betz)	NWS EMA Corporate sponsors	2006	Approx \$10K Requires funding Grants	# of radios	C	1, 5
Wind/Storm Driven Hazards	<b>Partner with the Home Builders Association to develop a program for pre-Built in weather radios</b> <ul style="list-style-type: none"> <li>Identify the safest spot in the house</li> <li>Develop an outreach pkg for new homeowner</li> </ul>	NWS (Mike Callahan)	HBAL Developers ARC	2006 to begin partnership	HBAL Consumer	Partnership	B	1, 5



Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Wind/Storm Driven Hazards	Requiring or at least encouraging safe rooms/safe places in Manufactured Housing parks						A	1
Wind/Storm Driven Hazards	<b>Promote Safe Rooms</b> <ul style="list-style-type: none"> <li>Encourage new construction to include a safe room</li> <li>ARC work with the HBAL to build safe rooms</li> <li>Study other communities to see what they have done</li> </ul>	ARC (George Betz)	Insurance Co. HBAL EMA	2006 - 2008	Safe rooms cost approx \$5K Grants	# of safe rooms	A	1, 2, 3
Wind/Storm Driven Hazards	<b>Public Outreach on retrofitting and wind-driven building techniques</b> Standardize message and program for how to make a home wind resistant <ul style="list-style-type: none"> <li>Promote existing Blueprint for Success Flash.org</li> <li>KY Weather Preparedness Committee is working to buy FLASH cards</li> </ul>	NWS  ARC  EMA	HBAL NWS ARC EMA All hazards portal KWPC IPL	2006	NOB	Partnerships	C	1, 5
Wind/Storm Driven Hazards	<b>Map historical tornado paths</b>	NWS (Mike Callahan)	LOJIC	2005	NOB	Map	C	5, 7
Wind/Storm Driven Hazards	<b>Partner with insurance companies</b> Help give premium reductions to people who have safe rooms or use other disaster-resistant techniques.	KY Dept of Insurance	Insurance Co LEPC	2007	NOB	Reduction in premiums	D	5
Wind/Storm Driven Hazards	<b>Hurricane Clips</b> <ul style="list-style-type: none"> <li>Require hurricane clips through the State Building Code – currently not required.</li> <li>Develop a petition, signed by Louisville and Lexington, for amendment to state Bldg Code</li> <li>Code Plus issue – market HBAL for hurricane clips and safe houses</li> </ul>	All Hazards Committee	HBAL NWS EMA ARC IPL KYEM KWPC LOJIC	2006	NOB	Adopted in State Building Code	A	1, 2, 5

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Wind/Storm Driven Hazards	<b>Assessment of public buildings</b> <ul style="list-style-type: none"> <li>Target structures that may need protection or roof repair</li> <li>Develop program to retrofit</li> </ul>	Metro Facilities Mgmt	PVA LOJIC IPL Structural Committee	2007	NOB	# of buildings assessed	B	2, 7
Wind/Storm Driven Hazards	<b>Research Minimum shingle type in codes/regulations</b>	IPL (Robert Kirchdorfer)		2007	NOB	Report	D	6
Wind/Storm Driven Hazards	<b>Develop a grant for "severe storm trailers"</b> Fire Department to take to schools	Suburban Fire District (Joe Johnson)	JCPS	2006	Grant	Purchase of trailer	C	5
Wind/Storm Driven Hazards	<b>Expand Weather Spotter Program</b>	NWS (Norm Reitmeyer)	CERT EMA ARC Police Metro/Suburban Fire Districts TARC JCPS	2005	NOB	# of spotters	C	1, 5
Wind/Storm Driven Hazards	<b>Develop a Tree Ordinance</b> Metro Parks and other government agencies are developing a community-wide Tree Ordinance.	Metro Parks – Bill Herron	Metro Parks Metro PW LOJIC	TBD			A	6

Hazard	Type of Activity or Project	Lead Implementer & Contact Person	Other Proposed Partners	Proposed Schedule	Funding/ Budget Considerations	Performance Measure	Priority	Matches Goals 1 - 7
Wind/Storm Driven Hazards	Tree trimming and power line maintenance  Pro-Active plan before severe weather	LG & E (Keith McBride)	Metro Parks Metro PW		Primarily LG&E funded; supported by Parks and Public Works maintenance	Reduction in average annual power outages	B	5, 6
Wind/Storm Driven Hazards	<b>Loss of Power-</b> <ul style="list-style-type: none"> <li>Promote LGE plans and target community expectations</li> <li>Increase outreach through ARC and JCPS during power outages</li> <li>Develop cross Information management</li> </ul>	LG & E (Keith McBride)	ARC Public Health IPL EMA JCPS Metro PW Police Metro/Suburban Fire Districts All hazards Portal	2005 - 2006	NOB	Reduction in average annual power outages	B	1, 5, 7
Wildfire	Develop standard for reporting grass, wild fire, etc....	Metro Fire (Al Tronzo) Suburban Fire (Joe Johnson)	EMA	2005	NOB	Consistent reporting	C	1, 2, 3
Wildfire	Acquire and deed restrict forested land e.g. Jefferson Memorial Forest, greenways, and parks	Metro Parks (Bill Herron)	MSD Louisville Metro Future Fund LOJIC	Ongoing	NOB Capital budget Acquisition depends on Grants	Acres purchased/ acquired	B	1
Wildfire	<b>Develop strategy for fire suppression</b> <ol style="list-style-type: none"> <li>Collect national fire data</li> <li>Map areas</li> <li>Target wildfire census tracts</li> </ol>	Metro Fire (Al Tronzo) Suburban Fire (Joe Johnson)	EMA LOJIC	2005	NOB	Strategy & Implementation plan	B	1, 5

Note: "NOB" indicates an internal agency effort via Normal Operating Budget resources

## Emergency Management and Hazard Mitigation Potential Funding Sources Federal Funding and Technical Assistance

Grant Name	Agency	Purpose	Hazard Mitigation Application	Contact
Emergency Management Performance Grants (EMPG)	FEMA	To encourage the development of comprehensive emergency management, including for terrorism consequence management, at the State and local level and to improve emergency management planning, preparedness, mitigation, response, and recovery capabilities.	Funding provided to States, which can be used to educate people and protect lives and structures from natural and technological hazards.	Office of Financial Management, FEMA, 500 C Street, S.W., Washington, DC 20472 Telephone: 202.646.7057. <a href="http://www.fema.gov">http://www.fema.gov</a>
Flood Mitigation Assistance Program	FEMA	To help States and communities plan and carry out activities designed to reduce the risk of flood damage to structures insurable under the NFIP.	The program provides planning and grants for projects that include mitigation activities that are technically feasible and cost effective.	Director, Program Support Division, Mitigation Directorate, FEMA, 500 C Street, S.W., Washington, DC 20472. Telephone: 202.646.4621 <a href="http://www.fema.gov/mit/">http://www.fema.gov/mit/</a>
Hazard Mitigation Grant Program (HMGP)	FEMA	To prevent future losses of lives and property due to disasters; to implement State or local hazard mitigation plans; to enable mitigation measures to be implemented during immediate recovery from a disaster; and to provide funding for previously identified mitigation measures to benefit the disaster area.	Project grants can be funded for such activities as acquisition, relocation, elevation, and improvements to facilities and properties to withstand future disasters.	Director, Program Support Division, Mitigation Directorate, FEMA, 500 C Street, S.W., Washington, DC 20472. Telephone: 202.646.4621. <a href="http://www.fema.gov/mit/grant.htm">http://www.fema.gov/mit/grant.htm</a>
National Earthquakes Hazards Reduction Program	FEMA	The NEHRP's premise is that while earthquakes may be inevitable, earthquake-related damages are not. Activities of the program include basic and applied research; technology development and transfer; and training, education, and advocacy for seismic risk reduction measures.	FEMA administers a program of grants and technical assistance to States to increase awareness of earthquake hazards, foster plans, and implement mitigation actions to reduce seismic vulnerability.	

Grant Name	Agency	Purpose	Hazard Mitigation Application	Contact
Pre-Disaster Mitigation Program (PDM)	FEMA	The Disaster Mitigation Act of 2000 created the Pre-Disaster Mitigation program. For federal fiscal year 2002, this limited funding is being used to help develop state and local mitigation plans, as also required by the Disaster Mitigation Act.	Federal Pre-Disaster Mitigation funding may be used for 75% of the eligible costs of an approved project and, at this time, the State does not provide monies toward the 25% not federally funded.	
The Stafford Act	FEMA	The Stafford Act is the Federal authority for the President's disaster relief program, and authorizes a range of assistance programs through FEMA, including:	Provision of temporary housing assistance, including vouchers, minor repairs to homes, and the use of mobile homes; Repair, reconstruction, or replacement of public facilities; Aid for individuals and families through grants for personal, uninsured emergency needs; Clearance of debris; Access to counseling and legal services; Funding for mitigation grants	
<b>Housing</b>				
Community Development Block Grant (CDBG)	Department of Housing and Urban Development (HUD)	To develop viable urban communities by providing decent housing and a suitable living environment. Principally for low-to moderate-income individuals.	Community Development activities that meet long-term needs. These activities can include acquisition, rehabilitation, reconstruction of properties and facilities damaged by a disaster, and redevelopment of disaster affected areas.	State and Small Cities Division, Office of Block Grant Assistance, CPD, HUD, 451 7th Street, S.W., Washington, DC 20410-7000. Telephone: 202.708.3587. <a href="http://www.hud.gov/bdfy2000/summary/cpd/cdbg.html">http://www.hud.gov/bdfy2000/summary/cpd/cdbg.html</a>
Economic Development and Adjustment Program, Sudden and Severe Economic Dislocation (Title IX)	Department of Commerce, Economic Development Administration (EDA)	To help States and localities to develop and/or implement strategies that address adjustment problems resulting from sudden and severe economic dislocation.	Project grants can be funded in response to natural disasters including improvements and reconstruction of public facilities.	Disaster Recovery Coordinator, Economic Adjustment Division, EDA, DOC, Herbert C. Hoover Building, Washington, DC 20230. Telephone: 800.345.1222 or 202.482.6225. <a href="http://www.doc.gov/eda/html/">http://www.doc.gov/eda/html/</a> prgttitle.htm

Grant Name	Agency	Purpose	Hazard Mitigation Application	Contact
<b>Disaster Housing Program</b>	Federal Emergency Management Agency (FEMA)	To provide assistance to enable households to address disaster-related housing needs.	Program assistance may include 1) Short-term Lodging; 2) Home Repair Assistance to restore the home to a livable condition; 3) Rental Assistance; 4) Mortgage and Rental Assistance; 5) Small minimization grants to incorporate hazard mitigation in home repair.	Human Services Division, Response and Recovery Directorate, FEMA, 500 C Street, SW, Washington, DC 20472. Telephone: 202.646.3642. <a href="http://www.fema.gov/r-n-r/types.htm">http://www.fema.gov/r-n-r/types.htm</a>
<b>Infrastructure</b>				
<b>Sustainable Development Assistance</b>	Department of Energy (DOE), Community Services Team	The Team works with communities to help them define and implement sustainable development strategies as part of their comprehensive community planning efforts.	The Team provides technical assistance to disaster-affected communities as they plan for long-term recovery by introducing a wide array of environmental technologies and sustainable redevelopment planning practices.	DOE, Office of Energy Efficiency and Renewable Energy, Denver Regional Support Office, 1617 Cole Blvd, Golden, CO 80401. Telephone: 303.275.4801 <a href="http://www.sustainable.doe.gov/">http://www.sustainable.doe.gov/</a>
<b>Flood Control Works/Emergency Rehabilitation</b>	Department of Defense, US Army Corps of Engineers (ARMY CORP OF ENGINEERS)	To assist in the repair and restoration of public works damaged by flood, extraordinary wind, wave, or water action.	The Corps provides public works and engineering support to supplement State and local efforts toward the effective and immediate response to a natural disaster.	Program Manager PL 84-99 ARMY CORP OF ENGINEERS, 20 Massachusetts Ave, N.W. Washington, DC 20314 Telephone: 202.761.0001 <a href="http://www.spd.usace.army.mil/hqpm.html">http://www.spd.usace.army.mil/hqpm.html</a>
<b>Public Assistance Program</b>	Federal Emergency Management Agency (FEMA)	To provide supplemental assistance to States, local governments, and certain private nonprofit organizations to alleviate suffering and hardship resulting from major disasters or emergencies declared by the President.	These grants allow State and local units of government to respond to disasters, recover from their impact and mitigate impact from future disasters.	Infrastructure Support Division, Response and Recovery Directorate, FEMA, 500 C Street, S.W., Washington, DC 20472. Telephone: 202.646.3026. <a href="http://www.fema.gov/r-n-r/pa">http://www.fema.gov/r-n-r/pa</a>
<b>Transportation: Emergency Relief Program</b>	Department of Transportation, Federal Highway Administration (FHWA)	To provide aid for repair of Federal-aid roads.	The funds can be used to repair federal-aid roads by using new technologies that improve the quality and lifespan of the roads.	Director, Office of Engineering, FHWA, DOT, 400 7th Street, S.W., Washington, DC 20590. Telephone: 202.366.4655. <a href="http://www.fhwa.dot.gov/infrastructure/progadmin/erelief.html">http://www.fhwa.dot.gov/infrastructure/progadmin/erelief.html</a>
<b>Water Pollution Control</b>	Environmental Protection Agency, Office of Water	To help establish and maintain adequate measures for prevention and control of surface water and groundwater pollution.	Protecting the quality of ground and surface water today will insure the safety of water sources for future generations.	Office of Water, EPA, Washington, DC 20460. Telephone: 202.260.6742. <a href="http://www.epa.gov/owwm/finan.htm#sec106">http://www.epa.gov/owwm/finan.htm#sec106</a>

Grant Name	Agency	Purpose	Hazard Mitigation Application	Contact
<b>Water and Waste Disposal Loans and Grants</b>	Department of Agriculture, Rural Utilities Service (RUS)	To develop, replace, or repair water and waste disposal (including storm drainage) systems in rural areas and towns with a population of 10,000 or less.	Use energy-efficient pumps and incorporate mitigation measures when restoring or replacing damaged water and sewer systems.	Assistant Administrator, Water and Waste, RUS, USDA, Washington, DC 20250-3200. Telephone: 202.720.9583. <a href="http://www.usda.gov/rus/water/programs.htm">http://www.usda.gov/rus/water/programs.htm</a>
<b>National Dam Safety Program (NDSP)</b>	Federal Emergency Management Agency (FEMA)	To provide financial assistance incentives to States so they can strengthen their dam safety program.	Funds may be used to enhance an existing dam safety program and provide training, annual maintenance and dam inspections.	Director, National Dam Safety Program FEMA, 500 C Street, S.W., Washington, DC 20472. Telephone: 202.646.2704. <a href="http://www.fema.gov">http://www.fema.gov</a>
<b>Historic Preservation</b>				
<b>Repair and Restoration of Disaster-Damaged Historic Properties</b>	Federal Emergency Management Agency (FEMA)	To evaluate the effects of repairs to, restoration of, or mitigating hazards to disaster-damaged historic structures working in concert with the requirements of the Stafford Act.	Preservation of historic structures is an important link to our past. By providing assistance in mitigating future damages, historic structures can be saved for future generations to enjoy.	Infrastructure Support Division, Response and Recovery Directorate, FEMA, 500 C Street, S.W., Washington, DC 20472. Telephone: 202.646.3026. <a href="http://www.fema.gov/nwz99/fldhisthm.htm">http://www.fema.gov/nwz99/fldhisthm.htm</a>
<b>Historic Preservation Fund Grants-in-Aid</b>	Department of the Interior, National Park Service (NPS)	To provide matching grants to States to expand the National Register of Historic Places, the nation's listing of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture.	Grants-in-Aid are provided for the identification, evaluation, and protection of historic properties by such means as survey, planning, technical assistance, acquisition, development, and certain tax incentives available for historic properties.	Associate Director, Cultural Resources, NPS, DOI, Washington, DC 20240. Telephone: 202.343.9509. <a href="http://www.cr.nps.gov/helpyou.htm#grants">http://www.cr.nps.gov/helpyou.htm#grants</a>
<b>Land Management</b>				
<b>Emergency Watershed Protection</b>	Department of Agriculture, Natural Resource Conservation Services (NRCS)	To provide emergency technical and financial assistance to install or repair structures that reduce runoff and prevent soil erosion to safeguard life and property.	In preventing substantial run-off and erosion, the program helps prevent future property loss and preserves soil resources.	Deputy Chief for Natural Resource Programs, NRCS, USDA, PO Box 2890, Washington, DC, 20013. Telephone: 202.720.3527. <a href="http://www.ftw.nrcs.usda.gov/pl566/EWP/ewp.htm">http://www.ftw.nrcs.usda.gov/pl566/EWP/ewp.htm</a>
<b>Land and Water Conservation Fund Grants</b>	Department of the Interior, National Park Service (NPS)	To acquire and develop outdoor recreation areas and facilities for the general public, to meet current and future needs.	Project grants may be used for a wide range of outdoor recreation projects, such as picnic areas, campgrounds, tennis courts, boat launching ramps, bicycle trails, and support facilities.	Chief, Recreation Grants Division, NPS, DOI, PO Box 37127, Washington, DC 20013-7127. Telephone: 202.565.1200 <a href="http://www.ncrc.nps.gov/lwcf/">http://www.ncrc.nps.gov/lwcf/</a>

Grant Name	Agency	Purpose	Hazard Mitigation Application	Contact
<b>Park and Recreation Recovery Program</b>	Department of the Interior, National Park Service (NPS)	To provide for the rehabilitation of recreation areas and facilities, demonstration of innovative approaches to improve park system management and recreation opportunities, and development of improved recreation planning.	The program allows jurisdictions to provide recreational facilities in areas prone to natural disasters.	Chief, Recreation Grants Division, NPS, DOI, PO Box 37127, Washington, DC 20013-7127. Telephone: 202.565.1200 <a href="http://www.ncrc.nps.gov/uparr/">http://www.ncrc.nps.gov/uparr/</a>
<b>River Basin Program</b>	Department of Agriculture, Natural Resource Conservation Services (NRCS)	To provide planning assistance to Federal, State, and local agencies for the development of coordinated water and related land resource programs.	Priority is given to projects designed to solve problems of upstream rural community flooding; water quality improvement that comes from agricultural nonpoint sources; wetland preservation; and drought management for agricultural and rural communities.	Deputy Chief for Natural Resource Programs, NRCS, USDA, PO Box 2890, Washington, DC, 20013. Telephone: 202.690.4575
<b>Watershed Protection and Flood Prevention</b>	Department of Agriculture, Natural Resource Conservation Services (NRCS)	To provide technical and financial assistance in planning and executing works of improvement to protect, develop, and use land and water resources in small watersheds.	Protecting watersheds enables future generations to enjoy those watershed land resources in the future.	Deputy Chief for Natural Resource Programs, NRCS, USDA, PO Box 2890, Washington, DC, 20013. Telephone: 202.720.4527 <a href="http://www.ftw.nrcs.usda.gov/pl566/pl566.html">http://www.ftw.nrcs.usda.gov/pl566/pl566.html</a>



